

CLAIMS

1. A method for generating a query comprising:
transmitting a broadcast to a display device;
receiving a command to pause the broadcast;
transmitting a still image frame to the display device upon receiving the pause command;
receiving telestrator data designating at least a portion of the still image frame;
receiving data identifying a user;
generating a query comprising the telestrator data, the data identifying the user, and data identifying the still image frame; and
transmitting the query to a remote information system.
2. The method of claim 1, further comprising displaying the telestrator data on the display device.
3. The method of claim 2, wherein the telestrator data is overlaid onto the still image frame displayed on the display device.
4. The method of claim 1, wherein the broadcast comprises a satellite broadcast or a cable broadcast.
5. The method of claim 1, wherein the broadcast comprises a previously recorded broadcast stored on a storage device.
6. The method of claim 1, wherein the still image frame comprises an image frame of the broadcast that was displayed at substantially the moment when the pause command was received.
7. The method of claim 1, wherein the still image frame comprises a predefined image frame that corresponds to an image frame of the broadcast that was displayed at substantially the moment when the pause command was received.
8. The method of claim 1, wherein the telestrator data designates an object of interest in the still image frame.

9. The method of claim 8, wherein the telestrator data comprises lines and/or curves enclosing the object of interest within the still image frame.
10. The method of claim 8, wherein the telestrator data comprises one or more pixels placed directly atop the object of interest within the still image frame.
11. The method of claim 8, wherein the telestrator data comprises a scribble placed directly atop the object of interest within the still image frame.
12. The method of claim 8, wherein the object of interest is an object shown in the still image frame for which the user desires further information.
13. The method of claim 1, wherein transmitting the query to a remote information system is carried out over a telephone network.
14. The method of claim 1, wherein transmitting the query to a remote information system is carried out over a computer network.
15. The method of claim 14, wherein the computer network comprises the Internet.
16. The method of claim 1, wherein transmitting the query to a remote information system is carried out over a wireless network.
17. The method of claim 1, wherein the commands and the data are received in the form of wireless signals.
18. The method of claim 17, wherein the wireless signals comprise infrared signals.
19. The method of claim 17, wherein the wireless signals comprise Bluetooth signals.
20. The method of claim 17, wherein the wireless signals comprise 802.11 signals.
21. The method of claim 1, wherein the data identifying the still image frame comprises a frame number.

22. The method of claim 1, wherein the data identifying the still image frame comprises a time value.
23. The method of claim 1, wherein the data identifying the still image frame is found in the vertical blanking interval.
24. The method of claim 1, wherein the data identifying the still image frame is found in the broadcast signal.
25. The method of claim 1, wherein the data identifying the still image frame includes a program identifier.
26. The method of claim 1, wherein the display device comprises a television.
27. An apparatus for generating a query comprising:
a processor;
a memory;
a wireless communications system;
a software application, physically stored in the memory, for generating a query, comprising instructions operable to cause the processor and the apparatus to:
transmit a broadcast to a display device;
receive a command to pause the broadcast;
transmit a still image frame to the display device upon receiving the pause command;
receive telestrator data designating at least a portion of the still image frame;
receive data identifying a user;
generate a query comprising the telestrator data, the data identifying the user, and data identifying the still image frame; and
transmit the query to a remote information system.
28. The apparatus of claim 27, wherein the wireless communications system comprises an infrared communications system.

29. The apparatus of claim 27, wherein the wireless communications system comprises a Bluetooth communications system.

30. The apparatus of claim 27, wherein the wireless communications system comprises an 802.11 communications system.

31. The apparatus of claim 27, wherein the software application further comprises instructions operable to cause the processor and the apparatus to display the telestrator data on the display device.

32. The apparatus of claim 31, wherein the telestrator data is overlaid onto the still image frame displayed on the display device.

33. The apparatus of claim 27, wherein the still image frame comprises an image frame of the broadcast that was displayed at substantially the moment when the pause command was received.

34. The apparatus of claim 27, wherein the still image frame comprises a predefined image frame that corresponds to an image frame of the broadcast that was displayed at substantially the moment when the pause command was received.

35. The apparatus of claim 27, wherein the telestrator data designates an object of interest in the still image frame.

36. The apparatus of claim 27, wherein transmitting the query to a remote information system is carried out over a telephone network, a computer network, or a wireless network.

37. The apparatus of claim 27, wherein the commands and the data are received in the form of wireless signals.

38. The apparatus of claim 37, wherein the wireless signals comprise infrared signals, Bluetooth signals, or 802.11 signals.

39. The apparatus of claim 27, wherein the data identifying the still image frame includes a program identifier.

40. A computer program product, physically stored on a machine-readable medium, for generating a query, comprising instructions operable to cause a programmable processor to:

- transmit a broadcast to a display device;
- receive a command to pause the broadcast;
- transmit a still image frame to the display device upon receiving the pause command;
- receive telestrator data designating at least a portion of the still image frame;
- receive data identifying a user;
- generate a query comprising the telestrator data, the data identifying the user, and data identifying the still image frame; and
- transmit the query to a remote information system.

41. A data processing system, comprising:

- means for transmitting a broadcast to a display device;
- means for receiving a command to pause the broadcast;
- means for transmitting a still image frame to the display device upon receiving the pause command;
- means for receiving telestrator data designating at least a portion of the still image frame;
- means for receiving data identifying a user;
- means for generating a query comprising the telestrator data, the data identifying the user, and data identifying the still image frame; and
- means for transmitting the query to a remote information system.

42. A method for generating a query comprising:

- transmitting a pause command to a receiver;
- receiving user input comprising telestrator data designating a portion of a still image frame;
- transmitting the telestrator data to the receiver; and
- transmitting data identifying the user to the receiver.

43. The method of claim 42, further comprising:
receiving data describing the still image frame from the receiver; and
displaying the still image frame data on a display.

44. The method of claim 42, wherein the still image frame comprises an image frame of a broadcast that was displayed by the receiver at substantially the moment when the pause command was transmitted.

45. The method of claim 42, wherein the still image frame comprises a box having an aspect ratio that corresponds to an aspect ratio of a broadcast displayed by the receiver.

46. The method of claim 42, wherein the telestrator data designates an object of interest in the still image frame.

47. The method of claim 46, wherein the telestrator data comprises lines and/or curves enclosing the object of interest within the still image frame.

48. The method of claim 46, wherein the telestrator data comprises one or more pixels placed directly atop the object of interest within the still image frame.

49. The method of claim 46, wherein the telestrator data comprises a scribble placed directly atop the object of interest within the still image frame.

50. The method of claim 46, wherein the object of interest is an object shown in the still image frame for which the user desires further information.

51. The method of claim 42, wherein the commands and the data are transmitted in the form of wireless signals.

52. The method of claim 51, wherein the wireless signals comprise infrared signals.

53. The method of claim 51, wherein the wireless signals comprise Bluetooth signals.

54. The method of claim 51, wherein the wireless signals comprise 802.11 signals.

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55. An apparatus for generating a query comprising:
- a display;
 - a user interface;
 - a wireless communications system;
 - a processor;
 - a memory; and
 - a client application, physically stored in the memory, for generating a query, comprising instructions operable to cause the processor and the apparatus to:
 - transmit a pause command to a receiver;
 - receive user input comprising telestrator data designating a portion of a still image frame;
 - transmit the telestrator data to the receiver; and
 - transmit data identifying the user to the receiver.
56. The apparatus of claim 55, wherein the client application further comprises instructions operable to cause the processor and the apparatus to:
- receive data comprising the still image frame from the receiver; and
 - display the still image frame on the display.
57. The apparatus of claim 55, wherein the still image frame comprises an image frame of a broadcast that was displayed by the receiver at substantially the moment when the pause command was transmitted.
58. The apparatus of claim 55, wherein the still image frame comprises a box having an aspect ratio that corresponds to an aspect ratio of a broadcast displayed by the receiver.
59. The apparatus of claim 55, wherein the telestrator data designates an object of interest in the still image frame.
60. The apparatus of claim 55, wherein the object of interest is an object shown in the still image frame for which the user desires further information.

61. The apparatus of claim 55, wherein the commands and the data are transmitted in the form of wireless signals.

62. The apparatus of claim 61, wherein the wireless signals comprise infrared signals.

63. The apparatus of claim 61, wherein the wireless signals comprise Bluetooth signals.

64. The apparatus of claim 61, wherein the wireless signals comprise 802.11 signals.

65. A computer program product, physically stored on a machine-readable medium, for generating a query, comprising instructions operable to cause a programmable processor to:
transmit a pause command to a receiver;
receive user input comprising telestrator data designating a portion of a still image frame;
transmit the telestrator data to the receiver; and
transmit data identifying the user to the receiver.

66. The computer program product of claim 65, further comprising instructions operable to cause a programmable processor to:
receive data comprising the still image frame from the receiver; and
display the still image frame on a display.

67. A data processing system, comprising:
means for transmitting a pause command to a receiver;
means for receiving user input comprising telestrator data designating a portion of a still image frame;
means for transmitting the telestrator data to the receiver; and
means for transmitting data identifying the user to the receiver.

68. The data processing system of claim 67, further comprising:
means for receiving data comprising the still image frame from the receiver; and
means for displaying the still image frame on a display.

69. A method for retrieving information about an object comprising:
receiving a query comprising telestrator data, data identifying a user, data identifying a still image frame, and a program identifier;
identifying an object locator table associated with the program identifier;
retrieving a portion of the object locator table based on the data identifying a still image frame;
identifying objects of interest in the retrieved portion of the object locator table using the telestrator data; and
providing information associated with the identified objects of interest to the user.

70. The method of claim 69, wherein the program identifier is station identification information, channel identification information, or vertical blanking interval data.

71. The method of claim 69, wherein the data identifying the still image frame is a frame number or a time value.

72. The method of claim 69, wherein the object locator table comprises a relational database.

73. The method of claim 69, wherein the telestrator data comprises x, y positional parameters on the still image frame or x, y composite ratios relative to the image aspect of the still image frame.

74. The method of claim 69, wherein providing information to the user comprises sending an e-mail to the user, providing the information on an Internet website for the user, or transmitting the information to a client device of the user.

75. An apparatus for retrieving information about an object comprising:
a processor;
a memory;
a communications system;
a software application, physically stored in the memory, for generating a query, comprising instructions operable to cause the processor and the apparatus to:

receive a query comprising telestrator data, data identifying a user, data identifying a still image frame, and a program identifier;
identify an object locator table associated with the program identifier;
retrieve a portion of the object locator table based on the data identifying a still image frame;
identify objects of interest in the retrieved portion of the object locator table using the telestrator data; and
provide information associated with the identified objects of interest to the user.

76. A computer program product, physically stored on a machine-readable medium, for retrieving information about an object, comprising instructions operable to cause a programmable processor to:

receive a query comprising telestrator data, data identifying a user, data identifying a still image frame, and a program identifier;
identify an object locator table associated with the program identifier;
retrieve a portion of the object locator table based on the data identifying a still image frame;
identify objects of interest in the retrieved portion of the object locator table using the telestrator data; and
provide information associated with the identified objects of interest to the user.

77. A data processing system comprising:
means for receiving a query comprising telestrator data, data identifying a user, data identifying a still image frame, and a program identifier;
means for identifying an object locator table associated with the program identifier;
means for retrieving a portion of the object locator table based on the data identifying a still image frame;
means for identifying objects of interest in the retrieved portion of the object locator table using the telestrator data; and
means for providing information associated with the identified objects of interest to the user.